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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,283	09/25/2001	Randy P. Stanley	42390P12376	3844

7590

08/27/2004

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EXAMINER

HOFFMAN, BRANDON S

ART UNIT PAPER NUMBER

2136

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,283

Applicant(s)

STANLEY, RANDY P.

Examiner

Brandon Hoffman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5-7.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 23 is objected to because of the following informalities:
 - The last line of the claim states "period of time period of time." Please remove one 'period of time.'Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8, 10-27, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Fung (U.S. Patent No. 5,396,635).

Regarding claim 1, Fung teaches a method, comprising:

- Detecting a user event in a computing system (col. 3, lines 12-21);
- The computing system including an integrated circuit having multiple states of performance including a first state of performance, a second state of performance higher than the first state of performance, and a third state of performance higher than the second state of performance, the computing system having a power supply which includes a battery (col. 1, lines 59-64 and fig. 8,

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'sleep', 'doze', and 'on'); and

- Directly transitioning the integrated circuit from the first state of performance to the third state of performance based upon detecting the user event (col. 3, lines 32-38).

Regarding claim 2, Fung teaches wherein the user event is defined by a programming environment within which the computing system is operating (col. 3, lines 12-21).

Regarding claim 3, Fung teaches wherein directly transitioning comprises transitioning without delay (col. 3, lines 39-48).

Regarding claim 4, Fung teaches further comprising operating the integrated circuit at the third state of performance for a predefined period of time based upon thermal considerations to operate at the third state of performance without failure (fig. 8, the 'on' state only lasts for brief periods of time, and col. 3, lines 27-31).

Regarding claim 5, Fung teaches wherein the computing system comprises a laptop computer (col. 2, lines 19-29).

Regarding claim 6, Fung teaches wherein the computing system comprises a personal digital assistant (col. 1, lines 22-23).

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Regarding claims 7, 20, 24, 27, and 30, Fung teaches an apparatus/machine-readable medium, comprising:

- A computer readable medium (fig. 1, ref. num 15 and fig. 2);
- Detecting a user event in a computing system (column 3, lines 12-21);
- A first integrated circuit having multiple states of performance including a first state of performance, a second state of performance higher than the first state of performance, and a third state of performance higher than the second state of performance, the first integrated circuit coupled to the computer readable medium (col. 2, lines 1-6 and fig. 8, 'sleep', 'doze', and 'on'); and
- A program stored in the computer readable medium to manage power consumption within the first integrated circuit, instructions associated with the program to directly transition the first integrated circuit from the first state of performance to the third state of performance based upon detecting a user event (col. 3, lines 32-38).

Regarding claims 8 and 31, Fung teaches wherein the first state of performance comprises a first voltage level and a first operating frequency (col. 6, lines 16-19).

Regarding claims 10, 21, 25, 29, and 33, Fung teaches further comprising frequency regulation logic to change an operating frequency of the first integrated circuit, the frequency regulation logic to receive a signal from the program (col. 6, lines 45-48).

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Regarding claims 11, 22, and 26, Fung teaches further comprising voltage regulation logic to change an operating voltage of the first integrated circuit, the voltage regulation logic to receive a signal from the program (col. 6, lines 53-62).

Regarding claims 12-14, Fung teaches wherein the instructions reside in a Basic Input Output System, an operating system, or an application software (col. 5, lines 64-68).

Regarding claim 15, Fung teaches wherein the first integrated circuit comprises a chip set (col. 4, lines 40-50).

Regarding claim 16, Fung teaches wherein the first integrated circuit comprises a processing unit (fig. 1, ref. num 4).

Regarding claim 17, Fung teaches wherein the Basic Input Output System is to receive a notification signal from an operating system that the user event has occurred (col. 5, lines 64-68).

Regarding claim 18, Fung teaches wherein the program comprises an increasing state transition algorithm discrete from a decreasing state transition algorithm (col. 3, lines 1-11).

Regarding claim 19, Fung teaches wherein the program to transition the first

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integrated circuit to a next higher state of performance based upon an occurrence of a non-user event increasing utilization of the first integrated circuit over a preset threshold (col. 3, lines 22-31).

Regarding claim 23, Fung teaches operating the integrated circuit at the third state of performance for a transient period of time (fig. 8, the 'on' state only lasts for brief periods of time).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9, 28, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fung (U.S. Patent No. 5,396,635) in view of Hawkins et al. (EP 0,708,398).

Regarding claims 9, 28, and 32, Fung teaches all the limitations of claims 7, 27, and 30, respectively, above. However, Fung does not disclose wherein the third state of performance comprises a second integrated circuit co-processing instructions with the first integrated circuit.

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Hawkins et al. teaches wherein the third state of performance comprises a second integrated circuit co-processing instructions with the first integrated circuit (page 7, table I).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a second IC co-processing instructions for a third state, as taught by Hawkins et al., with the apparatus/readable medium of Fung. It would have been obvious for such modifications because a second processor processing during a third state of performance provides full speed processing power (see page 7, lines 29-33 of Hawkins et al.).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon Hoffman whose telephone number is 703-305-4662. The examiner can normally be reached on M-F 8:30 - 5:00. However, my new office number will be 571-272-3863 after our October move.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brandon Hoff

BH

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